

(FILE 'HOME' ENTERED AT 19:04:58 ON 18 JUL 2003)

FILE 'CAPLUS' ENTERED AT 19:05:11 ON 18 JUL 2003

L1 307 S DYE? (5A) ((TRANSFER INHIB?) OR SCAVENG?)  
L2 14 S L1 AND CROSSLINK?  
L3 14 S L1 AND (CROSSLINK? OR (CROSS LINK?) OR CROSS-LINK?)  
L4 28 S L1 AND (CROSSLINK? OR (CROSS LINK?) OR CROSS-LINK? OR COUPL?)  
L5 14 S L3  
L6 14 FOCUS L5 1-

=>

L6 ANSWER 1 OF 14 CAPLUS COPYRIGHT 2003 ACS  
 AN 1996:155557 CAPLUS  
 DN 124:205653  
 TI **Crosslinked copolymers as dye transfer inhibitors in laundry detergents**  
 IN Detering, Juergen; Schade, Christian; Perner, Johannes; Jaeger, Hans-Ulrich  
 PA BASF A.-G., Germany  
 SO Ger. Offen., 11 pp.  
 CODEN: GWXXBX



DT Patent  
 LA German  
 IC ICM C11D003-37  
 ICS C08F226-06; C08F271-02  
 ICA D06L001-12  
 ICI C11D003-37, C11D003-39, C11D003-395; C08F226-06, C08F226-00, C08F220-28, C08F220-60  
 CC 46-5 (Surface Active Agents and Detergents)  
 FAN CNT 1

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|---|------|----------|-----------------|----------|
| PI DE 4421179   | A1   | 19951221 | DE 1994-4421179 | 19940617 |
| WO 9535360  | A1   | 19951228 | WO 1995-EP2111  | 19950603 |
| W: AU, CA, JP, US   |      |          |                 |          |
| RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE  |      |          |                 |          |
| CA 2193127  | AA   | 19951228 | CA 1995-2193127 | 19950603 |
| AU 9526741  | A1   | 19960115 | AU 1995-26741   | 19950603 |
| EP 765379   | A1   | 19970402 | EP 1995-921823  | 19950603 |
| EP 765379   | B1   | 19980909 |                 |          |
| R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE   |      |          |                 |          |
| JP 10501573   | T2   | 19980210 | JP 1995-501563  | 19950603 |
| AT 170911   | E    | 19980915 | AT 1995-921823  | 19950603 |
| ES 2120213  | T3   | 19981016 | ES 1995-921823  | 19950603 |
| US 5830844  | A    | 19981103 | US 1996-750478  | 19961217 |
| PRAI DE 1994-4421179  |      | 19940617 |                 |          |
| WO 1995-EP2111  |      | 19950603 |                 |          |
| AB The title copolymers contain units derived from 1-vinylpyrrolidone (I), 1-vinylimidazole or a deriv., and/or 4-vinylpyridine N-oxide and have particle size 0.1-500 .mu.m. A copolymer prep'd. from I and N,N'-divinylethyleneurea was used as a <b>dye transfer inhibitor</b> .   |      |          |                 |          |
| ST vinylpyrrolidone copolymer <b>crosslinking dye transfer inhibitor</b> ; vinylimidazole copolymer <b>crosslinking dye transfer inhibitor</b> ; vinylpyridine copolymer <b>crosslinking dye transfer inhibitor</b> ; divinylethyleneurea copolymer <b>dye transfer inhibitor</b> ; ethyleneurea divinyl copolymer <b>dye transfer inhibitor</b> ; laundry detergent <b>dye transfer inhibitor</b> ; amine polymer <b>crosslinking dye transfer inhibitor</b> ; particle size polymer <b>dye transfer inhibitor</b> |      |          |                 |          |
| IT Particle size<br>(laundry detergents contg. <b>dye transfer inhibitors</b> comprising copolymers with controlled)  |      |          |                 |          |
| IT <b>Crosslinking</b><br>(of copolymers as <b>dye transfer inhibitors</b> in laundry detergents)   |      |          |                 |          |
| IT <b>Dyes</b><br>( <b>transfer inhibitors</b> ; <b>crosslinked copolymers for use in laundry detergents</b> )  |      |          |                 |          |
| IT Detergents   |      |          |                 |          |

(laundry, crosslinked copolymers as dye transfer inhibitors in)

IT Amines, uses  
RL: NUU (Other use, unclassified); TEM (Technical or engineered material use); USES (Uses)

(polymers, dye transfer inhibitors; with controlled particle size for use in laundry detergents)

IT 38743-73-6, N,N'-Divinylethyleneurea-1-vinylpyrrolidone copolymer  
87865-39-2 87865-40-5, N,N'-Divinylethyleneurea-1-vinylimidazole-1-

vinylpyrrolidone copolymer 174350-91-5  
RL: NUU (Other use, unclassified); TEM (Technical or engineered material use); USES (Uses)

(dye transfer inhibitors; with controlled particle size for use in laundry detergents)

RN 38743-73-6

RN 87865-39-2

RN 87865-40-5

RN 174350-91-5

L6 ANSWER 2 OF 14 CAPLUS COPYRIGHT 2003 ACS

AN 1996:537266 CAPLUS

DN 125:171549

TI Softening-through-the-wash laundry detergent compositions

IN Van Leeuwen, Petrus Johannes; Convents, Andre Christian; Busch, Alfred

PA Procter and Gamble Company, USA

SO Eur. Pat. Appl., 21 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM C11D003-00

ICS C11D003-37; C11D003-12

CC 46-5 (Surface Active Agents and Detergents)

FAN.CNT 1

|      | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|------|---|------|----------|-----------------|----------|
| PI   | EP 719856   | A1   | 19960703 | EP 1994-870213  | 19941229 |
|      | EP 719856   | B1   | 20021016 |                 |          |
|      | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE<br>ES 2185645   | T3   | 20030501 | ES 1994-870213  | 19941229 |
| PRAI | EP 1994-870213  | A    | 19941229 |                 |          |
| AB   | The present invention relates to softness through-the-wash laundry detergent compns. capable of providing excellent color care and fabric softness benefits comprising a polymeric dye transfer inhibiting agent, and a clay softening system characterized in that the polymeric dye-transfer inhibiting agent is substantially water-insol.; preferably said agent is a crosslinked polymer. Optionally, the water-insol. polymeric dye-transfer inhibitor is used with a water-sol. polymeric dye-transfer inhibitor. Crosslinked poly(vinylpyrrolidone) is a typical water-insol. dye-transfer inhibitor. |      |          |                 |          |

ST clay softener laundry detergent; dye transfer inhibitor crosslinked polymer detergent; polyvinylpyrrolidone crosslinked dye transfer inhibitor detergent

IT Polyamines

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(N-oxides; softening-through-the-wash laundry detergent compns. contg. clay softeners and polymeric dye-transfer inhibitors)

IT Softening agents

(softening-through-the-wash laundry detergent compns. contg. clay softeners and polymeric dye-transfer

inhibitors)

IT Polymers, uses  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(softening-through-the-wash laundry detergent compns. contg. clay softeners and polymeric **dye-transfer inhibitors**)

IT Detergents  
(laundry, softening-through-the-wash laundry detergent compns. contg. clay softeners and polymeric **dye-transfer inhibitors**)

IT Clays, uses  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(smectitic, softening-through-the-wash laundry detergent compns. contg. clay softeners and polymeric **dye-transfer inhibitors**)

IT 9003-39-8D, Polyvinylpyrrolidone, **crosslinked**  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(**dye-transfer inhibitor**;  
softening-through-the-wash laundry detergent compns. contg. clay softeners and polymeric **dye-transfer inhibitors**)

IT 9045-81-2 180627-84-3D, Vinylimidazole-4-vinylpyridine N-oxide-vinylpyrrolidone copolymer, **crosslinked**  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(softening-through-the-wash laundry detergent compns. contg. clay softeners and polymeric **dye-transfer inhibitors**)

RN 9003-39-8D  
RN 9045-81-2  
RN 180627-84-3D

L6 ANSWER 3 OF 14 CAPLUS COPYRIGHT 2003 ACS  
AN 1997:278802 CAPLUS  
DN 126:252701  
TI Detergents containing polycarboxylate cobuilders and polymeric **dye-transfer inhibitors**  
IN Boeckh, Dieter; Funhoff, Angelika; Jaeger, Hans-Ulrich; Schade, Christian; Stein, Stefan; Rau, Iris; Denzinger, Walter; Kroner, Matthias  
PA BASF A.-G., Germany  
SO Ger. Offen., 15 pp.  
CODEN: GWXXBX  
DT Patent  
LA German  
IC ICM C11D003-37  
ICS C11D001-83  
CC 46-5 (Surface Active Agents and Detergents)

FAN.CNT 1

|      | PATENT NO.  | KIND | DATE     | APPLICATION NO.  | DATE     |
|------|---|------|----------|------------------|----------|
| PI   | DE 19532715   | A1   | 19970306 | DE 1995-19532715 | 19950905 |
| PRAI | DE 1995-19532715  |      | 19950905 |                  |          |
| AB   | Polycarboxylates with wt.-av. mol. wt. $\geq$ 25,000 are used as cobuilders in detergents with water-sol. polymeric <b>dye-transfer inhibitors</b> having wt.-av. mol. wt. $\geq$ 30,000 and (or) water-insol. <b>crosslinked</b> polymeric <b>dye-transfer inhibitors</b> with particle size 0.1-500 $\mu$ m. Typical polymeric <b>dye-transfer inhibitors</b> have repeating units of N-vinylimidazole or 4-vinylpyridine N-oxides. |      |          |                  |          |
| ST   | polycarboxylate builder detergent; vinylpyridine oxide polymer <b>dye</b>   |      |          |                  |          |

**transfer inhibitor; dye transfer inhibitor** vinylimidazole polymer detergent  
 IT Detergents  
 Dyes  
     (detergents contg. polycarboxylate cobuilders and polymeric **dye transfer inhibitors**)  
 IT 112-90-3D, Oleylamine, reaction products with polyaspartic acid  
 24937-72-2D, Poly(maleic anhydride), hydrolyzed 25608-40-6D,  
 Polyaspartic acid, reaction products with oleylamine 26063-13-8D,  
 Polyaspartic acid, reaction products with oleylamine 26426-80-2,  
 Isobutene-maleic anhydride copolymer 29132-58-9, Acrylic acid-maleic  
 acid copolymer 70205-95-7, Sodium polyglyoxylate 154913-47-0  
 188708-69-2, Acrylic acid-maleic acid-vinyl propionate copolymer  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material  
 use); USES (Uses)  
     (detergents contg. polycarboxylate cobuilders and polymeric **dye transfer inhibitors**)  
 IT 87865-40-5P, N,N'-Divinylethyleneurea-1-Vinylimidazole-1-vinylpyrrolidone  
     copolymer  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM  
     (Technical or engineered material use); PREP (Preparation); USES (Uses)  
     (**dye-transfer inhibitor**; detergents  
     contg. polycarboxylate cobuilders and polymeric **dye transfer inhibitors**)  
 IT 25232-42-2, Poly(1-vinylimidazole) 29297-55-0, 1-Vinylimidazole-1-  
     vinylpyrrolidone copolymer  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material  
 use); USES (Uses)  
     (**dye-transfer inhibitor**; detergents  
     contg. polycarboxylate cobuilders and polymeric **dye transfer inhibitors**)  
 RN 112-90-3D  
 RN 24937-72-2D  
 RN 25608-40-6D  
 RN 26063-13-8D  
 RN 26426-80-2  
 RN 29132-58-9  
 RN 70205-95-7  
 RN 154913-47-0  
 RN 188708-69-2  
 RN 87865-40-5P  
 RN 25232-42-2  
 RN 29297-55-0

L6 ANSWER 4 OF 14 CAPLUS COPYRIGHT 2003 ACS

AN 1996:607429 CAPLUS

DN 125:225161

TI Preparation of agglomerated crosslinked vinylimidazole  
     copolymers for use as **dye transfer inhibitors**

IN Schade, Christian; Schneider, Karl-Heinrich

PA BASF A.-G., Germany

SO Ger. Offen., 8 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM C08F026-06

    ICS C08F002-32; B01F017-52; C11D003-37

ICA C08G081-00; C08G081-02; C08G077-46

CC 46-5 (Surface Active Agents and Detergents)  
     Section cross-reference(s): 35

FAN.CNT 1

|    | PATENT NO.  | KIND | DATE     | APPLICATION NO.  | DATE     |
|----|-------------|------|----------|------------------|----------|
| PI | DE 19505750 | A1   | 19960822 | DE 1995-19505750 | 19950220 |

*Shade*

|  |    |          |                |          |
|--|----|----------|----------------|----------|
| WO 9626229   | A1 | 19960829 | WO 1996-EP575  | 19960210 |
| W: JP, US  |    |          |                |          |
| RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE |    |          |                |          |
| EP 811025  | A1 | 19971210 | EP 1996-901803 | 19960210 |
| EP 811025  | B1 | 19981209 |                |          |
| R: BE, CH, DE, ES, FR, GB, IT, LI, NL                              |    |          |                |          |
| JP 11500170  | T2 | 19990106 | JP 1996-525351 | 19960210 |
| ES 2124627   | T3 | 19990201 | ES 1996-901803 | 19960210 |
| US 5804662   | A  | 19980908 | US 1997-894364 | 19970819 |
| PRAI DE 1995-19505750  |    | 19950220 |                |          |
| WO 1996-EP575  |    | 19960210 |                |          |

AB The title copolymers, useful as **dye transfer inhibitors**, in laundry detergents, are prep'd. by radical polymn. of a monomer mixt. (e.g., N-vinylimidazole, N-vinylpyrrolidone, and N,N'-divinylethyleneurea) in a water-in-oil emulsion contg. .gtoreq.1 emulsifier, azeotropic distn. of the water from the emulsion, and isolation of the copolymer as agglomerated finely divided particles, the emulsifier being a block copolymer having hydrophobic and hydrophilic blocks, e.g., Hypermer B 246, an oxirane-styrene block copolymer, or Tegopren 7006.

ST vinylimidazole emulsion polymn **dye transfer inhibitor**; block copolymer emulsifier polymn vinylimidazole; **crosslinking vinylimidazole copolymer emulsion**; laundry detergent **dye transfer inhibitor**; imidazole vinyl polymn **dye transfer inhibitor**

IT Emulsifying agents  
(block copolymers; in prepn. of agglomerated **crosslinked vinylimidazole copolymers for use as dye transfer inhibitors**)

IT Dyes  
(prepn. of agglomerated **crosslinked vinylimidazole copolymers as dye transfer inhibitors in detergents**)

IT Polymerization  
(emulsion, of agglomerated **crosslinked vinylimidazole copolymers for use as dye transfer inhibitors**)

IT Detergents  
(laundry, prepn. of agglomerated **crosslinked vinylimidazole copolymers for use as dye transfer inhibitors in**)

IT Siloxanes and Silicones, uses  
RL: NUU (Other use, unclassified); TEM (Technical or engineered material use); USES (Uses)  
(polyether-, emulsifier; in prepn. of agglomerated **crosslinked vinylimidazole copolymers for use as dye transfer inhibitors**)

IT Polyethers, uses  
RL: NUU (Other use, unclassified); TEM (Technical or engineered material use); USES (Uses)  
(siloxane-, emulsifier; in prepn. of agglomerated **crosslinked vinylimidazole copolymers for use as dye transfer inhibitors**)

IT 87865-39-2P, N,N'-Divinylethyleneurea-N-vinylimidazole copolymer  
87865-40-5P, N,N'-Divinylethyleneurea-N-vinylimidazole-N-vinylpyrrolidone copolymer  
RL: IMF (Industrial manufacture); NUU (Other use, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(agglomerated **crosslinked particles** prep'd. by emulsion polymn. for use as **dye transfer inhibitors**)

IT 107311-90-0, Ethylene oxide-styrene block copolymer 117753-68-1, Hypermer B 246  
RL: NUU (Other use, unclassified); TEM (Technical or engineered material use); USES (Uses)

(emulsifier; in prepn. of agglomerated crosslinked vinylimidazole copolymers for use as dye transfer inhibitors)

RN 87865-39-2P  
RN 87865-40-5P  
RN 107311-90-0  
RN 117753-68-1

L6 ANSWER 5 OF 14 CAPLUS COPYRIGHT 2003 ACS

AN 1997:33971 CAPLUS

DN 126:76517

TI Use of water-insoluble, crosslinked polymers having pyrrolidone, imidazole, or pyridine side chains as dye-transfer inhibitors for detergents

IN Boeckh, Dieter; Jaeger, Hans-Ulrich; Funhoff, Angelika; Schade, Christian; Stein, Stefan

PA BASF A.-G., Germany

SO Ger. Offen., 12 pp.

CODEN: GWXXBX

DT Patent

LA German

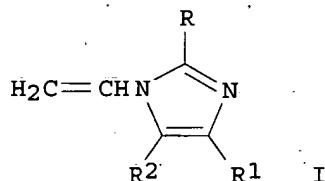
IC ICM C11D001-83

CC 46-5 (Surface Active Agents and Detergents)

FAN.CNT 1

|      | PATENT NO.   | KIND | DATE     | APPLICATION NO.  | DATE     |
|------|--|------|----------|------------------|----------|
| PI   | DE 19519337  | A1   | 19961128 | DE 1995-19519337 | 19950526 |
|      | WO 9637598   | A1   | 19961128 | WO 1996-EP2113   | 19960517 |
|      | W: CA, JP, US  |      |          |                  |          |
|      | RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE |      |          |                  |          |
| PRAI | DE 1995-19519337   |      | 19950526 |                  |          |
| GI   |  |      |          |                  |          |

*Hand*



AB Water-insol., crosslinked polymers prep'd. from 1-vinylpyrrolidone and(or) vinylimidazole derivs. I (R, R1, R2 = H, C1-4 alkyl, or Ph) or 4-vinylpyridine N-oxide and having  $\geq 90\%$  particles with size 0.1-500  $\mu\text{m}$  are useful as dye-transfer inhibitors for detergents contg. bleaching agents and  $\leq 8\%$  alkylbenzenesulfonates.

ST pyrrolidone group polymer manuf detergent additive; alkylbenzenesulfonate detergent dye transfer inhibitor; dye transfer inhibitor detergent bleach contg; pyridine group polymer manuf detergent additive; imidazole group polymer manuf detergent additive

IT Bleaching agents

Detergents

Dyes

(use of water-insol., crosslinked polymers having pyrrolidone, imidazole, or pyridine side chains as dye-transfer inhibitors for detergents)

IT 11138-47-9, Sodium perborate 15630-89-4, Sodium percarbonate

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(bleach; use of water-insol., crosslinked polymers having pyrrolidone, imidazole, or pyridine side chains as dye-transfer inhibitors for detergents)

IT 162328-49-6P 185041-24-1P

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (use of water-insol., crosslinked polymers having pyrrolidone, imidazole, or pyridine side chains as dye-transfer inhibitors for detergents)

IT 98-11-3D, Benzenesulfonic acid, C10-13 alkyl derivs., sodium salts, uses RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(use of water-insol., crosslinked polymers having pyrrolidone, imidazole, or pyridine side chains as dye-transfer inhibitors for detergents)

RN 11138-47-9

RN 15630-89-4

RN 162328-49-6P

RN 185041-24-1P

RN 98-11-3D

L6 ANSWER 6 OF 14 CAPLUS COPYRIGHT 2003 ACS

AN 2001:319571 CAPLUS

DN 134:327846

TI Wrinkle resistant composition and container article

IN Altmann, Markus W.; Hubesch, Bruno Albert Jean; Soyez, Heidi Simonne Mariette

PA The Procter & Gamble Company, USA

SO Eur. Pat. Appl., 29 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM D06M015-11

ICS D06M015-423; D06M015-61; C08L039-06

CC 40-9 (Textiles and Fibers)

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

PI EP 1096056 A1 20010502 EP 1999-870222 19991027  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI, RO

WO 2001031113 A1 20010503 WO 2000-US29768 20001027  
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,  
CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR,  
KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX,  
MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM,  
TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ,  
MD, RU, TJ, TM  
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,  
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,  
CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

BR 2000015097 A 20020716 BR 2000-15097 20001027

EP 1224354 A1 20020724 EP 2000-973986 20001027

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI, RO, MK, CY, AL

JP 2003513177 T2 20030408 JP 2001-533244 20001027

PRAI EP 1999-870222 A 19991027  
WO 2000-US29768 W 20001027

AB A wrinkle reducing compn. comprises a crosslinking resin having the property of being cationic such as quaternary ammonium resin and a component being co-crosslinked with the resin and/or a component

comprising .gtoreq.1 unit which provides a **dye transfer** inhibiting benefit. The title compn. provides that when the crosslinking resin is a polyquaternary amine resin of polyamide polyamine epichlorohydrin adduct at 15%, the amino functional polymer is not ethoxylated polyethyleneimine at 5%. Fabrics are treated for imparting various benefits including reducing wrinkles; improving the natural drape of fabrics, imparting a crisp finish to fabrics, reducing the time and/or effort involved to iron fabrics, imparting crease resistance to fabrics, imparting post wash wrinkle resistance to fabrics, imparting in-wear wrinkle resistance to fabrics, imparting a redn. of the fabric aging upon multiple application. An example compn. contained Kymene 557H 5, Luviskol K 30 1, silicone surfactants 2.5, diethylene glycol 0.25, perfume 0.05%, and the balance water.

ST cationic **crosslinking** resin fabric wrinkleproofing; polyvinylpyrrolidone wrinkleproofing agent; **dye transfer** inhibitor wrinkleproofing agent

IT Creaseproofing

(agents; wrinkle resistant compn. contg. both cationic resin and component with **dye transfer** inhibiting benefit)

IT Amines, uses

Polyamines

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(wrinkle resistant compn. contg. both cationic resin and component with **dye transfer** inhibiting benefit)

IT 106-89-8D, Epichlorohydrin, reaction products with adipic acid-diethylenetriamine copolymer 9002-98-6 9003-39-8, Luviskol K 30 9005-25-8D, Starch, cationic, uses 25085-20-5D, Adipic acid-diethylenetriamine copolymer, reaction products with epichlorohydrin 26062-79-3, Poly(diallyldimethylammonium chloride) 59680-46-5, Kymene 557H 229645-44-7, Kymene ULX-2 289471-15-4, Dow Corning 949 336787-09-8, Luresin KNU

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(wrinkle resistant compn. contg. both cationic resin and component with **dye transfer** inhibiting benefit)

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Bip Chemicals Ltd; GB 2185499 A 1987 CAPLUS
- (2) Noda Isao; US 5342875 A 1994 CAPLUS
- (3) Patel, K; US 4007005 A 1977 CAPLUS
- (4) Procter & Gamble; EP 0378871 A 1990 CAPLUS
- (5) Procter & Gamble; WO 9523840 A 1995 CAPLUS
- (6) Procter & Gamble; EP 0978556 A 2000 CAPLUS

RN 106-89-8D

RN 9002-98-6

RN 9003-39-8

RN 9005-25-8D

RN 25085-20-5D

RN 26062-79-3

RN 59680-46-5

RN 229645-44-7

RN 289471-15-4

RN 336787-09-8

L6 ANSWER 7 OF 14 CAPLUS COPYRIGHT 2003 ACS

AN 2001:12573 CAPLUS

DN 134:87952

TI Fabric care compositions having improved color fidelity for use in detergents

IN Gordon, Neil James

PA The Procter & Gamble Company, USA

SO PCT Int. Appl., 43 pp.

CODEN: PIXXD2  
DT Patent  
LA English  
IC ICM C11D003-37  
ICS C11D003-00  
CC 46-5 (Surface Active Agents and Detergents)  
FAN.CNT 1

|    | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|----|---|------|----------|-----------------|----------|
| PI | WO 2001000767   | A1   | 20010104 | WO 2000-US17649 | 20000627 |
|    | W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |      |          |                 |          |
|    | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  |      |          |                 |          |

PRAI US 1999-141557P P 19990629

AB Laundry and laundry detergent compns. comprise .gtoreq.0.1% fabric enhancement system of .gtoreq.1 polyamines and .gtoreq.0.1% transition metal-contg. dye protection system of an oligomer formed from the reaction of an imidazole and a **crosslinking** agent, preferably epichlorohydrin. A fabric care compn. contained Dye fixative Cartafix CB 5.0, Bayhibit AM 1.0, C12trimethylammonium chloride softener 2.0, fabric enhancement agent Lupasol SKA 3.0, fabric enhancement agent Luviskol K 85 3.5, heavy metal **dye transfer inhibitor** 3.0%, and water.

ST polyamine fabric care compn detergent; imidazole epichlorohydrin oligomer **dye transfer inhibitor**; graft polyamine fabric care compn

IT Polyamines

RL: MOA (Modifier or additive use); USES (Uses)  
(fabric care agent in combination with transition metal-contg. dye protection system for detergents)

IT Detergents

(laundry; including fabric care compns. having improved color fidelity and fade resistance and reduce fabric damage)

IT 9002-98-6, Lupasol SK 316356-99-7, Lupasol SKA 316357-05-8, Luviskol K 85

RL: MOA (Modifier or additive use); USES (Uses)  
(fabric care agent in combination with transition metal-contg. dye protection system for detergents)

IT 68797-57-9, Imidazole-epichlorohydrin copolymer

RL: MOA (Modifier or additive use); USES (Uses)  
(oligomeric, **dye transfer inhibitor**, transition metal-contg. dye protection system in combination with polyamine fabric care agent for detergents)

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

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- (2) Basf AG; DE 19643281 A 1998 CAPLUS
- (3) Boeckh Dieter; WO 0049122 A 2000 CAPLUS
- (4) Gosselink Eugene Paul; WO 0022077 A 2000 CAPLUS
- (5) Henkel Kgaa; EP 0158260 A 1985 CAPLUS
- (6) Hildebrandt Soren; WO 9914300 A 1999 CAPLUS
- (7) Randall Sherri Lynn; WO 9829530 A 1998 CAPLUS

RN 9002-98-6

RN 316356-99-7

RN 316357-05-8

RN 68797-57-9

L6 ANSWER 8 OF 14 CAPLUS COPYRIGHT 2003 ACS

AN 1996:653271 CAPLUS

DN 125:303850

TI Laundry article for preventing dye carry-over and indicator therefor

IN Johnson, Kaj A.; Van Buskirk, Gregory; Gillette, Samuel M.

PA Clorox Company, USA; Precision Fabrics Group, Inc.

SO PCT Int. Appl., 33 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM B32B007-00

ICS B32B027-00; D03D003-00; D03D015-00

CC 46-5 (Surface Active Agents and Detergents)

FAN.CNT 1

*Draw*

|  | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------------|------|------|-----------------|------|
|--|------------|------|------|-----------------|------|

|    |                   |    |          |                |          |
|----|-------------------|----|----------|----------------|----------|
| PI | <u>WO 9626831</u> | A1 | 19960906 | WO 1996-US2531 | 19960222 |
|----|-------------------|----|----------|----------------|----------|

W: CA, JP, MX

RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

CA 2209173 AA 19960906 CA 1996-2209173 19960222

EP 812261 A1 19971217 EP 1996-907115 19960222

R: DE, ES, FR, GB, IT

JP 11501368 T2 19990202 JP 1996-526355 19960222

PRAI US 1995-396853 19950301

WO 1996-US2531 19960222

AB A system for removing extraneous, random free-flowing dyes from laundry washing applications comprises a laundry article that can freely circulate among items being laundered. The laundry article comprises a **dye absorber** and a **dye transfer inhibitor** which are introduced into a wash liquor via a support matrix. The dye absorber maintains a relational assocn. with the support matrix in the wash liquor, whereas the **dye transfer inhibitor** is delivered up from the support matrix to the wash liquor and may be evenly distributed through the wash liquor. The laundry article provides a method for preventing the redeposition of extraneous dyes onto other wash items, while simultaneously providing an indicator system for the manifestation of such scavenging process. A typical laundry article was manufd. by dipping a fabric composed of 54% wood pulp and 46% polyester fibers in a mixt. contg. Reten 203 (low-to-medium mol. wt., high-charge d. cationic resin) 100, Polycup 1884 (water-sol. epichlorohydrin-polyamide) 50, and water 250 g, passing the impregnated fabric through 2 nip rollers, and cured 60 s at 300.degree.F.

ST dye redeposition prevention system laundering; epichlorohydrin polyamide impregnated fabric; cationic resin impregnated fabric; pulp fabric impregnated dye redeposition preventer; polyester fabric impregnated dye redeposition preventer; fabric impregnated dye redeposition prevention system

IT Amphoteric substances

(dye absorbers; impregnated fabrics contg. **dye absorber** and **dye transfer inhibitor** for preventing redeposition of **dyes** onto laundered garments with indicator for **dye scavenging**)

IT Proteins, uses

Quaternary ammonium compounds, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(dye absorbers; impregnated fabrics contg. **dye absorber** and **dye transfer inhibitor** for preventing redeposition of **dyes** onto laundered garments with indicator for **dye scavenging**)

IT Gums and Mucilages

Oxidizing agents

(**dye-transfer inhibitors**; impregnated fabrics contg. **dye absorber** and **dye transfer inhibitor** for preventing redeposition of

**dyes onto laundered garments with indicator for dye scavenging)**

IT Enzymes  
Peptides, uses  
Polyamides, uses  
Polyamines  
RL: TEM (Technical or engineered material use); USES (Uses)  
(**dye-transfer inhibitors**; impregnated fabrics contg. **dye absorber and dye transfer inhibitor** for preventing redeposition of **dyes onto laundered garments with indicator for dye scavenging**)

IT Pulp, cellulose  
(fabrics contg. polyester fibers and pulp fibers; impregnated fabrics contg. **dye absorber and dye transfer inhibitor** for preventing redeposition of **dyes onto laundered garments with indicator for dye scavenging**)

IT Dyes  
(impregnated fabrics contg. **dye absorber and dye transfer inhibitor** for preventing redeposition of **dyes onto laundered garments with indicator for dye scavenging**)

IT Polyester fibers, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(impregnated fabrics contg. **dye absorber and dye transfer inhibitor** for preventing redeposition of **dyes onto laundered garments with indicator for dye scavenging**)

IT Surfactants  
(**amphoteric, dye-transfer inhibitors**;  
impregnated fabrics contg. **dye absorber and dye transfer inhibitor** for preventing redeposition of **dyes onto laundered garments with indicator for dye scavenging**)

IT Surfactants  
(**cationic, dye-transfer inhibitors**;  
impregnated fabrics contg. **dye absorber and dye transfer inhibitor** for preventing redeposition of **dyes onto laundered garments with indicator for dye scavenging**)

IT Polyamides, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(**poly(amino acids), dye-transfer inhibitors**;  
impregnated fabrics contg. **dye absorber and dye transfer inhibitor** for preventing redeposition of **dyes onto laundered garments with indicator for dye scavenging**)

IT Carboxylic acids, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(**polymers, impregnated fabrics contg. dye absorber and dye transfer inhibitor** for preventing redeposition of **dyes onto laundered garments with indicator for dye scavenging**)

IT Polyamides, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(**reaction products, with epichlorohydrin, dye absorbers; impregnated fabrics contg. dye absorber and dye transfer inhibitor** for preventing redeposition of **dyes onto laundered garments with indicator for dye scavenging**)

IT 120-93-4D, Imidazolidinone, derivs.  
RL: TEM (Technical or engineered material use); USES (Uses)  
(**cationic polymers crosslinked by, dye absorbers; impregnated**)

fabrics contg. dye absorber and dye transfer inhibitor for preventing redeposition of dyes onto laundered garments with indicator for dye scavenging)

IT 67-48-1, Choline chloride 1398-61-4, Chitin 3327-22-8, QUAB 188  
9002-98-6 9003-11-6, Ethylene oxide-propylene oxide copolymer  
26336-38-9, Poly(vinylamine) 73071-59-7, Polycup 172 129807-53-0,  
Polycup 1884 182630-98-4 182971-62-6 182971-63-7 182971-66-0  
182971-67-1 182971-68-2 182971-69-3 182971-69-3 183074-46-6  
RL: TEM (Technical or engineered material use); USES (Uses)  
(dye absorber; impregnated fabrics contg. dye absorber and  
dye transfer inhibitor for preventing  
redeposition of dyes onto laundered garments with indicator  
for dye scavenging)

IT 106-89-8D, Epichlorohydrin, reaction products with polyamides  
RL: TEM (Technical or engineered material use); USES (Uses)  
(dye absorbers; impregnated fabrics contg. dye absorber and  
dye transfer inhibitor for preventing  
redeposition of dyes onto laundered garments with indicator  
for dye scavenging)

IT 9000-30-0, Guar gum 9003-39-8, PVP K-30 9004-67-5, Methyl cellulose  
9005-32-7, Alginic acid 11137-98-7, Magnesium aluminate 12304-65-3,  
Hydrotalcite 25232-42-2, Poly(vinylimidazole) 182482-80-0  
RL: TEM (Technical or engineered material use); USES (Uses)  
(dye-transfer inhibitor; impregnated  
fabrics contg. dye absorber and dye  
transfer inhibitor for preventing redeposition of  
dyes onto laundered garments with indicator for dye  
scavenging)

IT 12619-70-4, Cyclodextrin  
RL: TEM (Technical or engineered material use); USES (Uses)  
(dye-transfer inhibitors; impregnated  
fabrics contg. dye absorber and dye  
transfer inhibitor for preventing redeposition of  
dyes onto laundered garments with indicator for dye  
scavenging)

IT 79-10-7D, Acrylic acid, esters, polymers 9012-76-4, Chitosan  
RL: TEM (Technical or engineered material use); USES (Uses)  
(impregnated fabrics contg. dye absorber and dye  
transfer inhibitor for preventing redeposition of  
dyes onto laundered garments with indicator for dye  
scavenging)

RN 120-93-4D  
RN 67-48-1  
RN 1398-61-4  
RN 3327-22-8  
RN 9002-98-6  
RN 9003-11-6  
RN 26336-38-9  
RN 73071-59-7  
RN 129807-53-0  
RN 182630-98-4  
RN 182971-62-6  
RN 182971-63-7  
RN 182971-66-0  
RN 182971-67-1  
RN 182971-68-2  
RN 182971-69-3  
RN 182971-69-3  
RN 183074-46-6  
RN 106-89-8D  
RN 9000-30-0  
RN 9003-39-8  
RN 9004-67-5

RN 9005-32-7  
RN 11137-98-7  
RN 12304-65-3  
RN 25232-42-2  
RN 182482-80-0  
RN 12619-70-4  
RN 79-10-7D  
RN 9012-76-4

L6 ANSWER 9 OF 14 CAPLUS COPYRIGHT 2003 ACS

AN 2002:31096 CAPLUS

DN 136:71573

TI Laundry additive sachet for **scavenging dyes** and dirt  
from wash water

IN Porta, Antonella; Van der Heijden, Mark Pieter Adrie

PA The Procter & Gamble Company, USA

SO Eur. Pat. Appl., 26 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM C11D017-04

ICS C11D003-37; C11D003-12; D06F039-02

CC 46-5 (Surface Active Agents and Detergents)

FAN.CNT 1

|      | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|------|---|------|----------|-----------------|----------|
| PI   | EP 1170356  | A1   | 20020109 | EP 2000-870155  | 20000706 |
|      | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,<br>IE, SI, LT, LV, FI, RO  |      |          |                 |          |
|      | WO 2002004582   | A2   | 20020117 | WO 2001-US20537 | 20010627 |
|      | WO 2002004582   | A3   | 20020606 |                 |          |
|      | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,<br>CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI,<br>FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP,<br>KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX,<br>MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM,<br>TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD,<br>RU, TJ, TM |      |          |                 |          |
|      | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,<br>DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,<br>BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  |      |          |                 |          |
|      | AU 2001073039   | A5   | 20020121 | AU 2001-73039   | 20010627 |
| PRAI | EP 2000-870155  | A    | 20000706 |                 |          |
|      | WO 2001-US20537   | W    | 20010627 |                 |          |
| AB   | The sachet comprises a cavity (sealed bag) in which is found a polymeric<br>dye absorbing agent and a dirt binding agent. The sachet provides a<br>system of <b>scavenging fugitive dyes</b> or pigments and<br>dirt from laundry wash H <sub>2</sub> O. An example sachet was made from cotton yarn<br>contg. <b>crosslinked</b> polyvinyl pyridine-N-oxide.   |      |          |                 |          |
| ST   | polyvinyl pyridine oxide dye absorbing dirt binding sachet  |      |          |                 |          |
| IT   | Surfactants<br>(amphoteric; for laundry additive sachet for <b>scavenging</b><br><b>dyes</b> and dirt from wash water)  |      |          |                 |          |
| IT   | Surfactants<br>(cationic; for laundry additive sachet for <b>scavenging</b><br><b>dyes</b> and dirt from wash water)  |      |          |                 |          |
| IT   | Fibers<br>RL: MOA (Modifier or additive use); TEM (Technical or engineered material<br>use); USES (Uses)<br>(cellulosic; laundry additive sachet for <b>scavenging</b><br><b>dyes</b> and dirt from wash water)   |      |          |                 |          |
| IT   | Yarns<br>(cotton; laundry additive sachet for <b>scavenging dyes</b><br>and dirt from wash water)   |      |          |                 |          |

IT Polyolefin fibers  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(ethylene; laundry additive sachet for **scavenging dyes** and dirt from wash water)

IT Polyamines  
Proteins  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(for laundry additive sachet for **scavenging dyes** and dirt from wash water)

IT Laundering  
(laundry additive sachet for **scavenging dyes** and dirt from wash water)

IT Polyamide fibers, uses  
Polypropene fibers, uses  
Polyurethane fibers  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(laundry additive sachet for **scavenging dyes** and dirt from wash water)

IT Polyester fibers, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(laundry additive sachet for **scavenging dyes** and dirt from wash water)

IT 9005-25-8, Starch, uses  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(cationic; for laundry additive sachet for **scavenging dyes** and dirt from wash water)

IT 1398-61-4, Chitin 9002-89-5, Polyvinyl alcohol 9002-98-6 9012-76-4, Chitosan 9045-81-2, Polyvinyl pyridine-N-oxide 11137-98-7, Magnesium aluminate 25232-42-2, Polyvinyl imidazole 26336-38-9, Polyvinylamine 29132-58-9, Maleic acid/acrylic acid copolymer 182482-80-0, Polyvinyl oxazolidone 257633-16-2, Tinofix FRD  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(for laundry additive sachet for **scavenging dyes** and dirt from wash water)

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

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- (2) Johnson, K; US 5698476 A 1997
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RN 9005-25-8  
RN 1398-61-4  
RN 9002-89-5  
RN 9002-98-6  
RN 9012-76-4  
RN 9045-81-2  
RN 11137-98-7  
RN 25232-42-2  
RN 26336-38-9  
RN 29132-58-9  
RN 182482-80-0  
RN 257633-16-2

L6 ANSWER 10 OF 14 CAPLUS COPYRIGHT 2003 ACS

AN 1999:77984 CAPLUS

DN 130:308202

TI Fungal peroxidase: its structure, function, and application

AU Nakayama, Toru; Amachi, Teruo  
CS Department of Biochemistry and Engineering, Tohoku University, Aoba-ku,  
Aoba Aramaki, Sendai, 980-8579, Japan  
SO Journal of Molecular Catalysis B: Enzymatic (1999), 6(3), 185-198  
CODEN: JMCEF8; ISSN: 1381-1177  
PB Elsevier Science B.V.  
DT Journal; General Review  
LA English  
CC 7-0 (Enzymes)  
Section cross-reference(s): 9, 46  
AB A review with 55 refs. *Arthromyces ramosus*, a novel hyphomycete, extracellularly produces a single species of a heme-contg. peroxidase. The *A. ramosus* peroxidase, ARP, shows a broad specificity for hydrogen donors and high catalytic efficiency as does the well-known peroxidase from horseradish roots (HRP). However, it also exhibits unique catalytic properties. These features permit a wide range of applications for ARP, including high-sensitivity chemiluminescent detn. of biol. materials, protein crosslinking, and **dye-transfer inhibition** during laundering. The primary and tertiary structures of ARP are very similar to those of the class (II) lignin and manganese peroxidases of the plant peroxidase superfamily. Mechanistic studies of the ARP-catalyzed reaction revealed that it also proceeds with the classical peroxidase cycle; the native ferric ARP undergoes two-electron oxidn. by hydrogen peroxide to yield compd. (I), followed by two successive one-electron redns. by the hydrogen donor. X-ray crystallog., site-directed mutagenesis, and spectral analyses of ARP have afforded detailed information on the mol. mechanism of the ARP catalysis, and revealed the roles of active site amino acid residues and dynamic features of coordination as well as spin states of heme iron during catalysis. X  
ST review *Arthromyces* peroxidase structure function mechanism  
IT Detergents  
    (laundry, **dye-transfer inhibitor**,  
    structure, function, and application of peroxidase of *Arthromyces ramosus*)  
IT *Arthromyces ramosus*  
    Chemiluminescence spectroscopy  
    Crosslinking agents  
    (structure, function, and application of peroxidase of *Arthromyces ramosus*)  
IT 9003-99-0, Peróxidase  
    RL: ARG (Analytical réagent use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); CAT (Catalyst use); PRP (Properties); ANST (Analytical study); BIOL (Biological study); USES (Uses)  
    (structure, function, and application of peroxidase of *Arthromyces ramosus*)  
RE.CNT 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD  
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RN 9003-99-0

L6 ANSWER 11 OF 14 CAPLUS COPYRIGHT 2003 ACS  
 AN 2002:315061 CAPLUS  
 DN 136:327420  
 TI Laundering aid and article, its preparation, and use for preventing dye transfer to fabric  
 IN Panandiker, Rajan Keshav; Aouad, Yousef Georges; Randall, Sherri Lynn; Wertz, William Conrad  
 PA The Procter & Gamble Company, USA  
 SO PCT Int. Appl., 41 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM C11D017-04  
 ICS C11D003-37; C11D003-00  
 CC 46-5 (Surface Active Agents and Detergents)  
 Section cross-reference(s): 40

FAN.CNT 1

| PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|--|------|----------|-----------------|----------|
| PI WO 2002033040   | A1   | 20020425 | WO 2001-US42687 | 20011012 |
| W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, |      |          |                 |          |

KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,  
MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL,  
TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG,  
KZ, MD, RU, TJ  
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,  
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,  
BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  
AU 2002030406 A5 20020429 AU 2002-30406 20011012  
EP 1325107 A1 20030709 EP 2001-987789 20011012  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR  
PRAI US 2000-240320P P 20001013  
WO 2001-US42687 W 20011012  
AB A laundry additive article comprises an insol. (crosslinked) polymeric amine dye absorber (or anion exchanger) phys. adhered to an insol. substrate, e.g. nonwoven. The insol. polymeric amine dye absorber is dye-selective, preferentially binding fugitive dyes in a wash soln., rather than detergent components or fabrics. The laundry additive article may comprise addnl. components including a **dye transfer inhibitor** and a signal to visually indicate that fugitive dyes were **scavenged**. Amberlite IRA 35 was an example of a dye absorber, which could be affixed to a two ply web.  
ST nonwoven bound polymeric amine dye absorber; web bound polymeric amine dye absorber; laundering aid polymeric amine dye absorber  
IT **Dyes**  
(absorbers and **transfer inhibitors**; polymeric amine dye absorber for selectively absorbing and inhibiting transfer of extraneous dyes in the wash)  
IT Nonwoven fabrics  
(bound with polymeric amine dye absorber for selectively absorbing and inhibiting transfer of extraneous dyes in the wash)  
IT Absorbents  
(for dyes; polymeric amine dye absorber for selectively absorbing and inhibiting transfer of extraneous dyes in the wash)  
IT Detergents  
(laundry; polymeric amine dye absorber for selectively absorbing and inhibiting transfer of extraneous dyes in the wash)  
IT 59680-46-5; Kymene 557H 91315-75-2, Kymene 2064 336787-09-8, Luresin KNU  
RL: MOA (Modifier or additive use); USES (Uses)  
(crosslinker; polymeric amine dye absorber for selectively absorbing and inhibiting transfer of extraneous dyes in the wash)  
IT 67953-56-4P, Bis(hexamethylene)triamine-epichlorohydrin copolymer 414870-23-8P, Imidazole-trimethylolpropane triglycidyl ether copolymer  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)  
(polymeric amine dye absorber for selectively absorbing and inhibiting transfer of extraneous dyes in the wash)  
IT 76930-03-5, Amberlite IRA 35 117197-37-2, Sokalan HP 56  
RL: MOA (Modifier or additive use); USES (Uses)  
(polymeric amine dye absorber for selectively absorbing and inhibiting transfer of extraneous dyes in the wash)  
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE  
(1) Edwards, J; US 3694364 A 1972 CAPLUS  
(2) Johnson, K; US 5698476 A 1997  
(3) Kleinschmidt, D; US 3816321 A 1974 CAPLUS  
(4) Nat Starch Chem Invest; EP 1020513 A 2000 CAPLUS  
(5) Schmidt, B; WO 9742290 A 1997 CAPLUS  
RN 59680-46-5  
RN 91315-75-2  
RN 336787-09-8  
RN 67953-56-4P  
RN 414870-23-8P

RN 76930-03-5  
RN 117197-37-2

L6 ANSWER 12 OF 14 CAPLUS COPYRIGHT 2003 ACS

AN 1999:723159 CAPLUS

DN 131:324167

TI Laundry detergent and/or fabric care compositions comprising a modified transferase

IN Smets, Johan; Barnabas, Mary Vijayarani; Showell, Michael Stanford; Boyer, Stanton Lane; Convents, Andre Christian

PA Procter & Gamble Co., USA

SO PCT Int. Appl., 106 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C12N009-42

ICS C12N009-10; C11D003-386; D06M016-00

CC 46-5 (Surface Active Agents and Detergents)

Section cross-reference(s): 7

FAN.CNT 1

|      | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|------|---|------|----------|-----------------|----------|
| PI   | WO 9957258  | A1   | 19991111 | WO 1998-US8905  | 19980501 |
|      | W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM   |      |          |                 |          |
|      | RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG  |      |          |                 |          |
| AU   | 9874709   | A1   | 19991123 | AU 1998-74709   | 19980501 |
| CA   | 2330488   | AA   | 19991111 | CA 1999-2330488 | 19990430 |
| WO   | 9957254   | A1   | 19991111 | WO 1999-US9480  | 19990430 |
|      | W: AE, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, CZ, DE, DE, DK, DK, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |      |          |                 |          |
|      | RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  |      |          |                 |          |
| AU   | 9939683   | A1   | 19991123 | AU 1999-39683   | 19990430 |
| EP   | 1075509   | A1   | 20010214 | EP 1999-922758  | 19990430 |
|      | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI   |      |          |                 |          |
| BR   | 9910147   | A    | 20011002 | BR 1999-10147   | 19990430 |
| JP   | 2002513563  | T2   | 20020514 | JP 2000-547210  | 19990430 |
| US   | 6410498   | B1   | 20020625 | US 2000-674472  | 20001111 |
| PRAI | WO 1998-US8905  | A    | 19980501 |                 |          |
|      | WO 1999-US9480  | W    | 19990430 |                 |          |

AB The present invention relates to a modified enzyme which comprises a catalytically active amino acid sequence of a transferase linked to an amino acid sequence comprising a Cellulose Binding Domain (CBD). A specific embodiment comprises CBD-transferase, which is dextranase or transglutaminase or Toruzyme linked by PEG(NPC)2 to the cellulose-binding domain Cellulozome from Clostridium cellulovorans. The laundry detergent and/or fabric care compn. preferably further comprises a detergent ingredient selected from an anionic surfactant (alkyl sulfate, alkyl ethoxy sulfate, linear alkylene sulfonate), nonionic surfactant (alkyl ethoxylate), cationic surfactants, enzymes (protease, cellulase, lipase, amylase), bleaching agents, dye transfer inhibiting agents, dispersants, and smectite clay. The present invention further relates to laundry detergent and/or fabric care compns.

comprising such modified enzyme, for improved fabric care and cleaning benefits.

ST transferase modified laundry detergent; fabric care compn modified transferase; cellulose binding domain transferase laundry detergent

IT Enzyme functional sites  
(CBD (cellulose-binding domain); laundry detergent and/or fabric care compns. comprising a modified transferase)

IT Surfactants  
(anionic; laundry detergent and/or fabric care compns. comprising a modified transferase)

IT Surfactants  
(cationic; laundry detergent and/or fabric care compns. comprising a modified transferase)

IT *Trichoderma reesei*  
(cellulose-binding domain of CBHI of; laundry detergent and/or fabric care compns. comprising a modified transferase)

IT *Clostridium cellulovorans*  
(cellulose-binding domain of Cellulozome of; laundry detergent and/or fabric care compns. comprising a modified transferase)

IT *Cellulomonas fimi*  
(cellulose-binding domain of CenC or CenA or Cex from; laundry detergent and/or fabric care compns. comprising a modified transferase)

IT *Clostridium stercorarium*  
(cellulose-binding domain of XynA of; laundry detergent and/or fabric care compns. comprising a modified transferase)

IT *Humicola insolens*  
(cellulose-binding domain of family 45 of; laundry detergent and/or fabric care compns. comprising a modified transferase)

IT *Bacillus agaradhaerens*  
(cellulose-binding domain of; laundry detergent and/or fabric care compns. comprising a modified transferase)

IT Bleaching agents  
(laundry detergent and/or fabric care compns. comprising a modified transferase)

IT Enzymes, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(laundry detergent and/or fabric care compns. comprising a modified transferase)

IT Surfactants  
(nonionic; laundry detergent and/or fabric care compns. comprising a modified transferase)

IT Clays, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(smectitic, transfer inhibiting agents; laundry detergent and/or fabric care compns. comprising a modified transferase)

IT Amino acids, uses  
Dipeptides  
Disaccharides  
Oligosaccharides, uses  
Peptides, uses  
Polysaccharides, uses  
Proteins, general, uses  
Tripeptides  
RL: MOA (Modifier or additive use); USES (Uses)  
(substrate; laundry detergent and/or fabric care compns. comprising a modified transferase)

IT Dispersing agents  
Dyes  
(transfer inhibiting agents; laundry detergent and/or fabric care compns. comprising a modified transferase)

IT 9012-54-8, Cellulase 37329-65-0, Cellobiohydrolase I  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(cellulose-binding domain of; laundry detergent and/or fabric care compns. comprising a modified transferase)

IT 9000-92-4, Amylase 9001-62-1, Lipase 9001-92-7, Proteinase 9030-09-5D, Cyclomaltodextrin glucanotransferase, **crosslinked** with cellulose-binding domain 9031-48-5D, Transglucosidase, **crosslinked** with cellulose-binding domain 9031-85-0D, Aminoacyltransferase, **crosslinked** with cellulose-binding domain 9032-14-8D, Dextransucrase, **crosslinked** with cellulose-binding domain 9033-07-2D, Glycosyltransferase, **crosslinked** with cellulose-binding domain 9047-61-4D, Transferase, **crosslinked** with cellulose-binding domain 9054-54-0D, Acyltransferase, **crosslinked** with cellulose-binding domain 80146-85-6D, Transglutaminase, **crosslinked** with cellulose-binding domain 89017-91-4D, Glucansucrase, **crosslinked** with cellulose-binding domain 100630-46-4D, Alternansucrase, **crosslinked** with cellulose-binding domain 141588-40-1D, Endoxyloglucan transferase, **crosslinked** with cellulose-binding domain

RL: MOA (Modifier or additive use); USES (Uses)  
(laundry detergent and/or fabric care compns. comprising a modified transferase)

IT 24991-53-5 150673-50-0 198227-38-2  
RL: NUU (Other use, unclassified); USES (Uses)  
(linker; laundry detergent and/or fabric care compns. comprising a modified transferase)

IT 57-50-1, Sucrose, uses 69-79-4, Maltose 9005-25-8, Starch, uses 12619-70-4, Cyclodextrin 37294-28-3, Xyloglucan  
RL: MOA (Modifier or additive use); USES (Uses)  
(substrate; laundry detergent and/or fabric care compns. comprising a modified transferase)

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Genencor Int; WO 9714789 A 1997 CAPLUS
- (2) Have, D; WO 9729186 A 1997 CAPLUS
- (3) Novonordisk As; WO 9723683 A 1997 CAPLUS
- (4) Turner, R; US 5624537 A 1997 CAPLUS
- (5) Unilever Plc; WO 9531556 A 1995 CAPLUS
- (6) Univ British Columbia; WO 9721822 A 1997 CAPLUS

RN 9012-54-8  
RN 37329-65-0  
RN 9000-92-4  
RN 9001-62-1  
RN 9001-92-7  
RN 9030-09-5D  
RN 9031-48-5D  
RN 9031-85-0D  
RN 9032-14-8D  
RN 9033-07-2D  
RN 9047-61-4D  
RN 9054-54-0D  
RN 80146-85-6D  
RN 89017-91-4D  
RN 100630-46-4D  
RN 141588-40-1D  
RN 24991-53-5  
RN 150673-50-0  
RN 198227-38-2  
RN 57-50-1  
RN 69-79-4  
RN 9005-25-8  
RN 12619-70-4  
RN 37294-28-3

L6 ANSWER 13 OF 14 CAPLUS COPYRIGHT 2003 ACS

AN 1999:723158 CAPLUS

DN 131:324166

TI Laundry detergent and/or fabric care compositions comprising a modified

cellulase

IN Smets, Johan; Busch, Alfred; Baeck, Andre Cesar; Bettiol, Jean-Luc  
Philippe; Boyer, Stanton Lane

PA The Procter & Gamble Company, USA

SO PCT Int. Appl., 88 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C12N009-42  
ICS C11D003-386; D06M016-00

CC 46-5 (Surface Active Agents and Detergents)  
Section cross-reference(s): 7

FAN.CNT 1

|      | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|------|---|------|----------|-----------------|----------|
| PI   | WO 9957257  | A1   | 19991111 | WO 1998-US8904  | 19980501 |
|      | W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,<br>DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG,<br>KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX,<br>NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,<br>UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM<br>RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,<br>FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,<br>CM, GA, GN, ML, MR, NE, SN, TD, TG   |      |          |                 |          |
| AU   | 9873659   | A1   | 19991123 | AU 1998-73659   | 19980501 |
| CA   | 2331137   | AA   | 19991111 | CA 1999-2331137 | 19990430 |
| WO   | 9957259   | A1   | 19991111 | WO 1999-US9409  | 19990430 |
|      | W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU,<br>CZ, CZ, DE, DÉ, DK, EE, ES, FI, FI, GB, GD, GE, GH, GM,<br>HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,<br>LT, LU, LV, MD, MG, MK, MN, MW, NO, NZ, PL, PT, RO, RU, SD,<br>SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU,<br>ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM<br>RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,<br>ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,<br>CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  |      |          |                 |          |
| AU   | 9937743   | A1   | 19991123 | AU 1999-37743   | 19990430 |
| BR   | 9910156   | A    | 20010109 | BR 1999-10156   | 19990430 |
| EP   | 1073725   | A1   | 20010207 | EP 1999-920184  | 19990430 |
|      | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI   |      |          |                 |          |
| JP   | 2002513564  | T2   | 20020514 | JP 2000-547215  | 19990430 |
| US   | 6541438   | B1   | 20030401 | US 2001-674480  | 20010130 |
| PRAI | WO 1998-US8904  | A    | 19980501 |                 |          |
|      | WO 1999-US9409  | W    | 19990430 |                 |          |
| AB   | The present invention relates to a modified enzyme which comprises a catalytically active amino acid sequence of a cellulolytic enzyme linked to an amino acid sequence comprising a Cellulose Binding Domain (CBD) having a relative binding const. (Kr-a) for binding to amorphous cellulose higher than 2.4 L/g cellulose, preferably higher than 3.5 L/g cellulose, more preferably higher than 4 L/g cellulose, for selective binding and hydrolysis of amorphous cellulose of cotton contg. fabrics in a laundry and/or fabric care application. A specific embodiment comprises CBD-Cellulase, which is the cellulolytic enzyme core derived for the enzyme sold under the tradename Carezyme linked to the CBD of the CenC cellulase of Cellulomonas fimi or the cellulase E3 of Thermomonospora fusca. The laundry detergent and/or fabric care compns. preferably further comprise a detergent ingredient selected from cationic surfactants, smectite clay, <b>dye transfer-inhibiting</b> polymer, and builder component (in particular zeolite A or sodium tripolyphosphate). The present invention further relates to laundry detergent and/or fabric care compns. comprising this modified enzyme. |      |          |                 |          |
| ST   | laundry detergent modified cellulase; fabric care compn modified cellulase  |      |          |                 |          |
| IT   | Enzyme functional sites   |      |          |                 |          |

(CBD (cellulose-binding domain); laundry detergent and/or fabric care compns. comprising a modified cellulase)

IT A zeolites  
RL: MOA (Modifier or additive use); USES (Uses)  
(builder component; laundry detergent and/or fabric care compns. comprising a modified cellulase)

IT Surfactants  
(cationic; laundry detergent and/or fabric care compns. comprising a modified cellulase)

IT Fungi  
Humicola insolens  
(cellulolytic enzyme from; laundry detergent and/or fabric care compns. comprising a modified cellulase)

IT Enzymes, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(cellulolytic; laundry detergent and/or fabric care compns. comprising a modified cellulase)

IT Bacteria (Eubacteria)  
Cellulomonas fimi  
Clostridium cellulolyticum  
Clostridium stercorarium  
Myxococcus xanthus  
Streptomyces reticuli  
Thermobifida fusca  
(cellulose-binding domain from; laundry detergent and/or fabric care compns. comprising a modified cellulase)

IT Detergent builders  
Textiles  
(laundry detergent and/or fabric care compns. comprising a modified cellulase)

IT Detergents  
(laundry; laundry detergent and/or fabric care compns. comprising a modified cellulase)

IT Clays, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(smectitic; laundry detergent and/or fabric care compns. comprising a modified cellulase)

IT Dyes  
(transfer inhibiting polymer; laundry detergent and/or fabric care compns. comprising a modified cellulase)

IT 7758-29-4, Sodium tripolyphosphate  
RL: MOA (Modifier or additive use); USES (Uses)  
(builder component; laundry detergent and/or fabric care compns. comprising a modified cellulase)

IT 9012-54-8D, Carezyme, crosslinked with cellulose-binding domain  
RL: MOA (Modifier or additive use); USES (Uses)  
(laundry detergent and/or fabric care compns. comprising a modified cellulase)

IT 24991-53-5 150673-50-0 198227-38-2  
RL: NUU (Other use, unclassified); USES (Uses)  
(linker; laundry detergent and/or fabric care compns. comprising a modified cellulase)

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Genencor Int; WO 9217572 A 1992 CAPLUS
- (2) Genencor Int; WO 9322414 A 1993 CAPLUS
- (3) Genencor Int; WO 9423113 A 1994 CAPLUS
- (4) Jeffreys Brian; WO 9502675 A 1995 CAPLUS
- (5) Kao Corp; JP 06158097 A 1994 CAPLUS
- (6) Maglione, G; APPLIED AND ENVIRONMENTAL MICROBIOLOGY 1992, V58(11), P3593 CAPLUS
- (7) Nielsen Jack Bech; WO 9701629 A 1997 CAPLUS
- (8) Tomme, P; BIOCHEMISTRY 1996, V35(44), P13885 CAPLUS
- (9) Tomme, P; JOURNAL OF BACTERIOLOGY 1995, V177(15), P4356 CAPLUS

RN 7758-29-4  
RN 9012-54-8D  
RN 24991-53-5  
RN 150673-50-0  
RN 198227-38-2

L6 ANSWER 14 OF 14 CAPLUS COPYRIGHT 2003 ACS

AN 1998:430194 CAPLUS

DN 129:109460

TI Polyamine polymers from alternating aliphatic polyketones, their manufacture, and their use

IN Kratz, Detlef; Lippert, Ferdinand; Schwab, Peter; Boeckh, Dieter; Perner, Johannes

PA BASF A.-G., Germany

SO Ger. Offen., 16 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM C08G073-06

ICS C08G061-12; B01F017-52; C09K015-30; D06M015-61; C08G059-50; C10M149-22; D06P001-52

CC 35-8 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 38, 40, 43, 46, 51, 62

FAN.CNT 1

|    | PATENT NO.  | KIND | DATE     | APPLICATION NO.  | DATE     |
|----|---|------|----------|------------------|----------|
| PI | DE 19654058   | A1   | 19980625 | DE 1996-19654058 | 19961223 |
|    | EP 850976   | A1   | 19980701 | EP 1997-122116   | 19971216 |
|    | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO |      |          |                  |          |
|    | US 5952438  | A    | 19990914 | US 1997-992530   | 19971217 |
|    | JP 10218990   | A2   | 19980818 | JP 1997-354397   | 19971224 |

PRAI DE 1996-19654058 19961223

AB Polyamine polymers are manufd. by reaction of 1-alkene-CO alternating copolymers with NH<sub>3</sub> or RNH<sub>2</sub> (R = NH<sub>2</sub>, OH, C1-10 alkyl, C6-20 aryl, C7-20 aralkyl, C7-20 alkaryl, or organosilane group), or reagents releasing NH<sub>3</sub> or RNH<sub>2</sub> and hydrogenation. These polymers are useful in textile industry, detergents, adhesives, cosmetics, metal processing and extg., paper industry, gasoline, and lubricants.

ST polyamine polymer aliph polyketone aminated hydrogenated; alternating alkene carbon monoxide copolymer aminated; lubricant additive polyamine polymer; gasoline additive polyamine polymer; paper industry polyamine polymer; metal processing extg polyamine polymer; cosmetic polyamine polymer; adhesive polyamine polymer; detergent polyamine polymer; textile industry polyamine polymer

IT Polyketones

RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(aliph.; polyamine polymers from alternating aliph. polyketones)

IT Cosmetics

(creams; polyamine polymers from alternating aliph. polyketones for skin creams)

IT Detergents

(dishwashing; polyamine polymers from alternating aliph. polyketones for additives for dishwashing detergents)

IT Recycling

(metal; polyamine polymers from alternating aliph. polyketones for metal recycling)

IT Polyamines

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(polyamine polymers from alternating aliph. polyketones)

IT Sizes (agents)

(polyamine polymers from alternating aliph. polyketones for additives for sizes)

IT Adhesives

Crosslinking agents

(polyamine polymers from alternating aliph. polyketones for adhesive crosslinkers)

IT Complexing agents

(polyamine polymers from alternating aliph. polyketones for complexing agents)

IT Corrosion inhibitors

(polyamine polymers from alternating aliph. polyketones for corrosion inhibitors)

IT Dispersing agents

(polyamine polymers from alternating aliph. polyketones for dispersants)

IT Detergents

Dyes

(polyamine polymers from alternating aliph. polyketones for dye transfer inhibitors in detergents)

IT Epoxy resins, uses

RL: POF (Polymer in formulation); USES (Uses)

(polyamine polymers from alternating aliph. polyketones for epoxy resin crosslinkers)

IT Gasoline additives

(polyamine polymers from alternating aliph. polyketones for gasoline additives)

IT Hair preparations

(polyamine polymers from alternating aliph. polyketones for hair preps.)

IT Lubricants

(polyamine polymers from alternating aliph. polyketones for lubricants)

IT Paper

(polyamine polymers from alternating aliph. polyketones for papermaking auxiliaries)

IT Cosmetics

Solubilizers

(polyamine polymers from alternating aliph. polyketones for solubilizers for cosmetics)

IT Stabilizing agents

(polyamine polymers from alternating aliph. polyketones for stabilizers for polyoxyalkylenes)

IT Polyoxyalkylenes, uses

RL: POF (Polymer in formulation); USES (Uses)

(polyamine polymers from alternating aliph. polyketones for stabilizers for polyoxyalkylenes)

IT Textiles

(polyamine polymers from alternating aliph. polyketones for textile treatment)

IT Colloids

(protective; polyamine polymers from alternating aliph. polyketones for protective colloids)

IT Polyoxyalkylenes, preparation

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(reaction products with aminated, hydrogenated alkene-carbon monoxide alternating copolymers, surface-active; polyamine polymers from alternating aliph. polyketones)

IT Metals, processes

RL: PEP (Physical, engineering or chemical process); PROC (Process)

(refining; polyamine polymers from alternating aliph. polyketones for metal extg.)

IT 111190-67-1DP, Carbon monoxide-ethylene alternating copolymer, aminated, hydrogenated

RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or

engineered material use); PREP (Preparation); RACT (Reactant or reagent);  
USES (Uses)

(polyamine polymers from alternating aliph. polyketones)

IT 506-87-6DP, Ammonium carbonate, reaction products with alkene-carbon monoxide alternating copolymers, hydrogenated 7664-41-7DP, Ammonia, reaction products with alkene-carbon monoxide alternating copolymers, hydrogenated, preparation

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(polyamine polymers from alternating aliph. polyketones)

IT 7803-49-8, Hydroxylamine, uses

RL: NUU (Other use, unclassified); USES (Uses)

(polyamine polymers from alternating aliph. polyketones for stabilizers for hydroxylamine)

IT 7664-93-9DP, Sulfuric acid, salts with aminated, hydrogenated alkene-carbon monoxide alternating copolymers, preparation 25322-68-3DP, Polyethylene glycol, reaction products with aminated, hydrogenated alkene-carbon monoxide alternating copolymers

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(surface-active; polyamine polymers from alternating aliph. polyketones)

RN 111190-67-1DP

RN 506-87-6DP

RN 7664-41-7DP

RN 7803-49-8

RN 7664-93-9DP

RN 25322-68-3DP

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